

CLAIMS

1. A computer-implemented communication method, comprising:

providing one or more requests for acknowledgement in an asynchronous request message transmitted from a sender system, wherein each request for acknowledgement corresponds to at least one event related to the request message; and

transmitting the request message with the one or more requests for acknowledgement to a receiver system.

2. The method in accordance with claim 1, wherein requesting an acknowledgement includes setting a flag in a header of the request message.

3. The method in accordance with claim 2, wherein the flag is set in a header of the asynchronous request message.

4. The method in accordance with claim 1, wherein the event includes a system error during transport of the request message to the receiver system.

5. The method in accordance with claim 1, wherein the event includes the receipt of the request message by the receiver system.

6. The method in accordance with claim 1, wherein the event includes the successful processing of the request message by an application associated with the receiver system.

7. The method in accordance with claim 1, wherein the event includes the erroneous processing of the request message by an application associated with the receiver system.

8. The method in accordance with claim 1, further comprising generating the acknowledgement message upon completion of the event.

9. The method in accordance with claim 8, further comprising transmitting the acknowledgement message to the sender system.

10. The method in accordance with claim 1, further comprising:

generating a hoplist that includes a list of network components through which the request message is transmitted; and

transmitting an acknowledgement message related to each request for acknowledgement through network components corresponding to the hoplist.

11. The method in accordance with claim 1, further comprising:

splitting, at one or more network components between the sender system and the receiver system, a request message that is transmitted to one or more receiver systems into two or child messages, wherein each child message includes the one or more requests for acknowledgement; and

receiving an acknowledgement message related to event associated with each child message.

12. A computer-implemented communication method for acknowledging one or more events related to an asynchronous request message sent from a sender system to a receiver system, the method comprising:

receiving an asynchronous request message from the sender system;

determining, based on the asynchronous request message, whether an acknowledgement to an event associated with the asynchronous request message is requested; and

if an acknowledgement to the event associated with the asynchronous request message is requested, transmitting an asynchronous acknowledgement message to the sender system upon occurrence of the event, wherein the asynchronous acknowledgement message includes a result of the event and a reference to the asynchronous request message.

13. The method in accordance with claim 12, wherein the event corresponds to one or more events selected from the event group that consists of:

the receipt of the asynchronous request message by the receiver system;

a system error during transport of the request message to the receiver system;

the successful processing of the request message; and/or

the erroneous processing of the request message.

14. The method in accordance with claim 12, wherein the asynchronous acknowledgement message is generated by the receiver system, and further comprising receiving the asynchronous acknowledgement message from the receiver system.

15. The method in accordance with claim 14, further comprising matching the asynchronous acknowledgement message with the associated asynchronous request message.

16. The method in accordance with claim 15, wherein matching the asynchronous acknowledgement message with the associated asynchronous request message includes comparing the reference to the asynchronous request message with a message ID of a copy of the asynchronous request message.

17. The method in accordance with claim 12, wherein determining whether the sender system requests an acknowledgement to an event associated with the asynchronous request message includes reading a flag in a header of the asynchronous request message.

18. The method in accordance with claim 17, wherein the flag is set by the sender system.

19. A system for asynchronous communication between a sender system and a receiver system, comprising:

a forward pipeline for transmitting asynchronous request messages from the sender system to the receiver system; and

a backward pipeline for transmitting asynchronous acknowledgement messages from the receiver system to the sender system, wherein each acknowledgement message includes a reference to a request message and a result of an event associated with the request message.

20. The system in accordance with claim 19, further comprising an enterprise application integrator hosted on a server, and wherein the forward pipeline includes a first HTTP connection from the sender system to the server and a second HTTP connection from the server to the receiver system.

21. The system in accordance with claim 19, wherein the backward pipeline includes a first HTTP connection from the receiver system to the server and a second HTTP connection from the server to the sender system.

22. The system in accordance with claim 19, further comprising a database associated with the forward and backward pipelines, for storing a copy of each transmitted request message and each transmitted acknowledgement message.